



Infrastructure, environment, buildings

EPA Region 5 Records Ctr.



294150

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Tel 312 263 6703
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Mr. Jeffrey A. Leed
Leed Environmental, Inc.
Van Reed Office Plaza
2209 Quarry Drive, Suite C-35
Reading, PA 19609

ENVIRONMENTAL

Subject:

Monitoring Well Abandonment Report
NL Industries/Taracorp Site, Granite City, IL

Date:

12 September 2005

Dear Mr. Leed:

Contact:

Adam Tokarski

Phone:

312-425-4133

Email:

atokarski@arcadis-
us.com

Our ref:

CI001003.0008

On behalf of the NL Industries/Taracorp Superfund Site Group (Group), ARCADIS respectfully submits this report documenting the abandonment of eighteen (18) monitoring wells at the NL Industries/Taracorp Site (Site) in Granite City, Illinois. There were a total of thirty-five (35) monitoring wells associated with previous groundwater investigations at the Site. In February 2005, the Group and ARCADIS submitted a request to the U.S. Environmental Protection Agency (U.S. EPA) to abandon selected groundwater monitoring wells at the site. Following review and approval by the U.S. EPA in March 2005, ARCADIS abandoned 18 of the 35 monitoring wells at the site. The monitoring wells were selected for abandonment based on the results of previous groundwater sampling which indicated that constituents of concern were below laboratory detection limits. The wells that were abandoned included 12 monitoring wells at or adjacent to the Main Industrial Site, 3 wells in Eagle Park Acres, and 3 wells in Venice Township. The following letter report documents the abandonment activities.

Monitoring Well Abandonment

After approval was received from the U.S. EPA, ARCADIS and Leed Environmental, Inc. notified the property owners following the appropriate written and verbal methods outlined in the property access agreements that were obtained prior to installation of the monitoring wells.

After notification was made to the property owners, abandonment activities were initiated. ARCADIS performed monitoring well abandonment activities on July 12 and 13, 2005. The monitoring wells were abandoned according to the Illinois Water

Well Construction Code (77 Ill. Adm. Code 920, Section 920.120) by a licensed water well driller. The following procedures were followed during well abandonment activities for monitoring wells MW-102, MW-106S, MW-106D, GMMW-116S, GMMW-116D, GMMW-117, GMMW-118, GMMW-119, GMMW-120, GMMW-121, GMMW-122, GMMW-123, and GMMW-126.

- The total depth of each well was gauged prior to backfilling with bentonite chips, to determine the correct amount of seal material required.
- A one inch PVC pipe was lowered into the well to prevent bridging of the backfill material. The bentonite chips were slowly poured into the well.
- The PVC well casing was removed at least 2 feet below land surface (bls) and the flush mounted well box or stickup well protector, and well bumper posts (if present) were removed.
- A six inch to 1 foot thick concrete cap was poured two feet bls on top of the removed well casing with a diameter larger than the well casing or borehole.

The following procedures were followed during the well abandonment activities for monitoring wells GMMW-115S, GMMW-115D, GMMW-124S, GMMW-124D, and GMMW-125 located on the former National Steel property (currently Cara Metals Illinois). These specific wells were abandoned using over drilling procedures.

- The flush mounted well box was removed with the drill rig.
- The monitoring well casing was over drilled with a hollow stem auger drill rig.
- After the augers were advanced to the bottom of the monitoring well, the well casing and screen were removed from the augers and then the augers were pulled from the subsurface.
- The bore hole was backfilled with bentonite grout that was premixed and injected from the bottom of the bore hole to the surface using a tremie pipe.

The following monitoring wells remain at the site for use in the long-term groundwater monitoring program: MW-101, GMMW-103R, GMMW-104, GMMW-105S, GMMW-105D, MW-107S, MW-107D, GMMW-108S, MW-108D, GMMW-108X, GMMW-109S, GMMW-109D, GMMW-109X, GMMW-112S, GMMW-112D, GMMW-113S, and GMMW-113D.

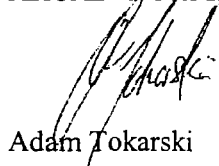
Closing Remarks

Photographs documenting the monitoring well abandonment are included in Enclosure 1. Copies of the required Illinois Department of Public Health water well sealing forms are provided in Enclosure 2. The original water well sealing forms were sent to the Madison County Health Department on August 4, 2005.

If you have any questions or comments concerning the monitoring well abandonment activities, please do not hesitate to contact us.

Sincerely,

ARCADIS, G&M, Inc.



Adam Tokarski
Project Geologist



Jack Kratzmeyer
Principal Engineer

Enclosures (2): Photographs
Water Well Sealing Forms



Photograph of monitoring well GMMW-122 after plugging with bentonite chips and removal of the well box.



Photograph of monitoring well GMMW-122 after plugging with bentonite chips and removal of the well box.



Monitoring well GMMW-119 after plugging with bentonite.



Monitoring well MW-102 well protector being removed with the drill rig.



Drill team removing the monitoring well casing and screen from monitoring well GMMW-115S.



Drill team removing the monitoring well casing and screen from monitoring well GMMW-124D.



Drill team removing the monitoring well casing and screen from monitoring well GMMW-124D.



The area where monitoring wells GMMW-124S and GMMW-124D were formerly located.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
525 W. JEFFERSON ST.
SPRINGFIELD, IL 62761

WATER WELL SEALING FORM

TYPE OR PRESS FIRMLY

RETURN ALL COPIES TO IDPH OR
LOCAL HEALTH DEPARTMENT

This form shall be submitted to this Department or the local health department not more than 30 days after a water well, boring or monitoring well is sealed. Such wells are to be sealed not more than 30 days after they are abandoned in accordance with the sealing requirements in the Water Well Construction Code. **THE LOCAL HEALTH DEPARTMENT OR REGIONAL PUBLIC HEALTH DEPARTMENT MUST BE NOTIFIED AT LEAST 48 HOURS PRIOR TO SEALING.**

1. Ownership (Name of Controlling Party) ARCADIS
2. Well Location State Street & 14th Street Granite City Madison
Address - Lot Number City County

General Description Township 3N (N)(S) Range 10W (E)(W) Section 24
Quarter of the Quarter of the Quarter

3. Year Drilled Unknown
4. Drilling Permit Number (and date, if known) _____
5. Type of Well Bored _____ Drilled X Other _____
6. Total Depth 25' Diameter (inches) 2"
7. Formation clear of obstruction X Yes _____ No _____

8. DETAILS OF PLUGGING

Filled with Bentonite Chips from 25 to 2 ft.
(cement or other materials)

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

9. CASING RECORD Upper 2 feet of casing removed X Yes _____ No _____

10. Date well was sealed Month July Day 12 Year 2005.

11. Licensed water well driller or other person approved by the Department performing well sealing.

Terra Drill 092-006857
Name Complete License Number
500 E Street Valmeyer IL 62255
Address City State/ZIP

This state agency is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under Public Act 85-0863. Disclosure of this information is mandatory. This form has been approved by the Forms Management Center. IL 482-0631

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
525 W. JEFFERSON ST.
SPRINGFIELD, IL 62761

WATER WELL SEALING FORM

TYPE OR PRESS FIRMLY

MW-1065

RETURN ALL COPIES TO IDPH OR
LOCAL HEALTH DEPARTMENT

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1. Ownership (Name of Controlling Party) ARCADIS

2. Well Location 1200 16th Street Granite City Madison
Address - Lot Number City County

General Description Township 3N (N)(S) Range 10W (E)(W) Section 24

Quarter of the Quarter of the Quarter

3. Year Drilled Unknown

4. Drilling Permit Number (and date, if known) _____

5. Type of Well Bored _____ Drilled X Other _____

6. Total Depth 21 Diameter (inches) 2"

7. Formation clear of obstruction X Yes _____ No

8. DETAILS OF PLUGGING

Filled with Bentonite Chips from 21 to 2 ft.
(cement or other materials)

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

9. CASING RECORD Upper 2 feet of casing removed X Yes _____ No

10. Date well was sealed Month July Day 12 Year 2005

11. Licensed water well driller or other person approved by the Department performing well sealing.

Terra Drill
Name

092-006857
Complete License Number

500 E Street
Address

Valmeyer IL 62295
City State/ZIP

This state agency is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under Public Act 85-0863. Disclosure of this information is mandatory. This form has been approved by the Forms Management Center. IL 482-0631

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
525 W. JEFFERSON ST.
SPRINGFIELD, IL 62761

WATER WELL SEALING FORM

TYPE OR PRESS FIRMLY

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LOCAL HEALTH DEPARTMENT

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1. Ownership (Name of Controlling Party) ARCADIS

2. Well Location 1200 16th Street Granite City Madison
Address - Lot Number City County

General Description Township 3N (N)(S) Range 10W (E)(W) Section 24
Quarter of the _____ Quarter of the _____ Quarter

3. Year Drilled unknown

4. Drilling Permit Number (and date, if known) _____

5. Type of Well Bored _____ Drilled X Other _____

6. Total Depth 35 Diameter (inches) 2"

7. Formation clear of obstruction X Yes _____ No

8. DETAILS OF PLUGGING

Filled with Bentonite Chys from 35 to 2 ft.
(cement or other materials)

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

9. CASING RECORD Upper 2 feet of casing removed X Yes _____ No

10. Date well was sealed Month July Day 12 Year 2005

11. Licensed water well driller or other person approved by the Department performing well sealing.

Terra Drill 092-006857
Name Complete License Number

500 E Strick Valmeyer IL 62295
Address City State/ZIP

This state agency is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under Public Act 85-0863. Disclosure of this information is mandatory. This form has been approved by the Forms Management Center. IL 482-0631

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
525 W. JEFFERSON ST.
SPRINGFIELD, IL 62761

WATER WELL SEALING FORM

RETURN ALL COPIES TO IDPH OR
LOCAL HEALTH DEPARTMENT

TYPE OR PRESS FIRMLY

GMMW-117

This form shall be submitted to this Department or the local health department not more than 30 days after a water well, boring or monitoring well is sealed. Such wells are to be sealed not more than 30 days after they are abandoned in accordance with the sealing requirements in the Water Well Construction Code. THE LOCAL HEALTH DEPARTMENT OR REGIONAL PUBLIC HEALTH DEPARTMENT MUST BE NOTIFIED AT LEAST 48 HOURS PRIOR TO SEALING.

1. Ownership (Name of Controlling Party) ARCADIS

2. Well Location 1226 Bissell Ave, Venice City Madison
Address - Lot Number County

General Description Township 3N (N)(S) Range 10W (E)(W) Section 25

Quarter of the Quarter of the Quarter

3. Year Drilled 2000

4. Drilling Permit Number (and date, if known)

5. Type of Well Bored _____ Drilled X Other _____

6. Total Depth 24 Diameter (inches) 2"

7. Formation clear of obstruction X Yes _____ No

8. DETAILS OF PLUGGING

Filled with Bentonite Chips from 24 to 2 ft.
(cement or other materials)

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

9. CASING RECORD Upper 2 feet of casing removed X Yes _____ No

10. Date well was sealed Month July Day 12 Year 2005

11. Licensed water well driller or other person approved by the Department performing well sealing.

Name Terra Drill Complete License Number 092-006857
500 E Street City Valmeyer State/ZIP IL 62295

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
525 W. JEFFERSON ST.
SPRINGFIELD, IL 62761

WATER WELL SEALING FORM

TYPE OR PRESS FIRMLY

6MMW-118

RETURN ALL COPIES TO IDPH OR
LOCAL HEALTH DEPARTMENT

This form shall be submitted to this Department or the local health department not more than 30 days after a water well, boring or monitoring well is sealed. Such wells are to be sealed not more than 30 days after they are abandoned in accordance with the sealing requirements in the Water Well Construction Code. THE LOCAL HEALTH DEPARTMENT OR REGIONAL PUBLIC HEALTH DEPARTMENT MUST BE NOTIFIED AT LEAST 48 HOURS PRIOR TO SEALING.

- Ownership (Name of Controlling Party) ARCADIS
- Well Location Kerr Street, Venice City Madison County
Address - Lot Number _____ Quarter of the _____ Quarter of the _____ Quarter
General Description Township 3N (N)(S) Range 10W (E)(W) Section 35
- Year Drilled 2000
- Drilling Permit Number (and date, if known) _____
- Type of Well Bored _____ Drilled X Other _____
- Total Depth 34 Diameter (inches) 2"
- Formation clear of obstruction X Yes _____ No
- DETAILS OF PLUGGING
Filled with Pentonite Chips from 34 to 2 ft.
(cement or other materials)
Kind of plug _____ from _____ to _____ ft.
Filled with _____ from _____ to _____ ft.
Kind of plug _____ from _____ to _____ ft.
Filled with _____ from _____ to _____ ft.
Kind of plug _____ from _____ to _____ ft.
- CASING RECORD Upper 2 feet of casing removed X Yes _____ No
- Date well was sealed Month July Day 12 Year 2005
- Licensed water well driller or other person approved by the Department performing well sealing.

Terra Drill
Name

092-006857
Complete License Number

500 E. Street
Address

Valmeyer IL 62295
City State/ZIP

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ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
525 W. JEFFERSON ST.
SPRINGFIELD, IL 62761

WATER WELL SEALING FORM

TYPE OR PRESS FIRMLY

C.M.W. - 119

RETURN ALL COPIES TO IDPH OR
LOCAL HEALTH DEPARTMENT

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1. Ownership (Name of Controlling Party) ARCADIS

2. Well Location 4th Street Kenilworth Madison
Address - Lot Number City County

General Description Township 3N (N)(S) Range 10W (E)(W) Section 35
Quarter of the Quarter of the Quarter

3. Year Drilled 2000

4. Drilling Permit Number (and date, if known) _____

5. Type of Well Bored _____ Drilled ☒ Other _____

6. Total Depth 22 Diameter (inches) 2"

7. Formation clear of obstruction ☒ Yes _____ No _____

8. DETAILS OF PLUGGING

Filled with Bentonite Chips from 22 to 2 ft.
(cement or other materials)

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

9. CASING RECORD Upper 2 feet of casing removed ☒ Yes _____ No _____

10. Date well was sealed Month July Day 12 Year 2005

11. Licensed water well driller or other person approved by the Department performing well sealing.

Terra Drill 092-006857
Name Complete License Number

500 E. Street Ved Meyer IL 62295
Address City State/ZIP

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
525 W. JEFFERSON ST.
SPRINGFIELD, IL 62761

WATER WELL SEALING FORM

TYPE OR PRESS FIRMLY

6MMW-120

RETURN ALL COPIES TO IDPH OR
LOCAL HEALTH DEPARTMENT

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1. Ownership (Name of Controlling Party) ARCADIS

2. Well Location Hill Street Madison Madison
Address - Lot Number City County

General Description Township 3N (N)(S) Range 10W (E)(W) Section 36

Quarter of the Quarter of the Quarter

3. Year Drilled 2000

4. Drilling Permit Number (and date, if known) _____

5. Type of Well Bored _____ Drilled X Other _____

6. Total Depth 21 Diameter (inches) 2"

7. Formation clear of obstruction X Yes _____ No

8. DETAILS OF PLUGGING

Filled with Bentonite Chips from 21 to 2 ft.
(cement or other materials)

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

9. CASING RECORD Upper 2 feet of casing removed X Yes _____ No

10. Date well was sealed Month July Day 12 Year 2005

11. Licensed water well driller or other person approved by the Department performing well sealing.

Terra Drill
Name

092-006857
Complete License Number

500 E Street
Address

Valmeyer
City

IL 62295
State/ZIP

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ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
525 W. JEFFERSON ST.
SPRINGFIELD, IL 62761

WATER WELL SEALING FORM

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LOCAL HEALTH DEPARTMENT

TYPE OR PRESS FIRMLY

6MMW-121

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1. Ownership (Name of Controlling Party) ARCADIS

2. Well Location Hill Street Madison Madison
Address - Lot Number City County

General Description Township 3N (N)(S) Range 10W (E)(W) Section 36

Quarter of the Quarter of the Quarter

3. Year Drilled 2000

4. Drilling Permit Number (and date, if known) _____

5. Type of Well Bored _____ Drilled X Other _____

6. Total Depth 20 Diameter (inches) 2"

7. Formation clear of obstruction X Yes _____ No

8. DETAILS OF PLUGGING

Filled with Bentonite Chips from 20 to 2 ft.
(cement or other materials)

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

9. CASING RECORD Upper 2 feet of casing removed X Yes _____ No

10. Date well was sealed Month July Day 12 Year 2005

11. Licensed water well driller or other person approved by the Department performing well sealing.

Name

Term Drill

Complete License Number

092-006857

Address

500 E Street

City

Volmeyer

IL 62295

State/ZIP

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
525 W. JEFFERSON ST.
SPRINGFIELD, IL 62761

WATER WELL SEALING FORM

TYPE OR PRESS FIRMLY

6MMW-122

RETURN ALL COPIES TO IDPH OR
LOCAL HEALTH DEPARTMENT

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1. Ownership (Name of Controlling Party) ARCADIS

2. Well Location Earle St Madison Madison
Address - Lot Number City County

General Description Township 3N (N)(S) Range 10W (E)(W) Section 36

Quarter of the Quarter of the Quarter

3. Year Drilled 2000

4. Drilling Permit Number (and date, if known) _____

5. Type of Well Bored _____ Drilled ☒ Other _____

6. Total Depth 21 Diameter (inches) 2

7. Formation clear of obstruction ☒ Yes _____ No

8. DETAILS OF PLUGGING

Filled with Bentonite Chips from 21 to 2 ft.
(cement or other materials)

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

9. CASING RECORD Upper 2 feet of casing removed ☒ Yes _____ No

10. Date well was sealed Month July Day 12 Year 2005

11. Licensed water well driller or other person approved by the Department performing well sealing.

Tema Drill
Name

092-006857
Complete License Number

500 E Street
Address

Valmeyer IL 62295
City State/ZIP

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ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
525 W. JEFFERSON ST.
SPRINGFIELD, IL 62761

WATER WELL SEALING FORM

TYPE OR PRESS FIRMLY

6MMW - 123

RETURN ALL COPIES TO IDPH OR
LOCAL HEALTH DEPARTMENT

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1. Ownership (Name of Controlling Party) ARCADIS

2. Well Location 12th Street and Madison Ave, Madison Madison
Address - Lot Number City County

General Description Township 3N (N)(S) Range 10W (E)(W) Section 25
Quarter of the Quarter of the Quarter

3. Year Drilled 2000

4. Drilling Permit Number (and date, if known) _____

5. Type of Well Bored _____ Drilled X Other _____

6. Total Depth 22 Diameter (inches) 2"

7. Formation clear of obstruction X Yes _____ No _____

8. DETAILS OF PLUGGING

Filled with Bestonite Chys from 22 to 2 ft.
(cement or other materials)

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

9. CASING RECORD Upper 2 feet of casing removed X Yes _____ No _____

10. Date well was sealed Month July Day 12 Year 2005

11. Licensed water well driller or other person approved by the Department performing well sealing.

Terra Drill
Name

092-006857
Complete License Number

500 E Street
Address

Valmeyer IL 62293
City State/ZIP

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
525 W. JEFFERSON ST.
SPRINGFIELD, IL 62761

WATER WELL SEALING FORM

TYPE OR PRESS FIRMLY

GMMW-124S

RETURN ALL COPIES TO IDPH OR
LOCAL HEALTH DEPARTMENT

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1. Ownership (Name of Controlling Party) ARCADIS

2. Well Location 16th Street Granite City Madison
Address - Lot Number City County

General Description Township 3N (N)(S) Range 10W (E)(W) Section 24

Quarter of the Quarter of the Quarter

3. Year Drilled 2000

4. Drilling Permit Number (and date, if known) _____

5. Type of Well Bored _____ Drilled X Other _____

6. Total Depth 27 Diameter (inches) 2"

7. Formation clear of obstruction X Yes _____ No

8. DETAILS OF PLUGGING

Filled with Bentonite Grout from 27 to 1 ft.
(cement or other materials)

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

9. CASING RECORD Upper 2 feet of casing removed X Yes _____ No over drilled to 27'

10. Date well was sealed Month July Day 13 Year 2005

11. Licensed water well driller or other person approved by the Department performing well sealing.

Terra Drill
Name

092-006857
Complete License Number

500 E Street
Address

Valmeyer IL 62295
City State/ZIP

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ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
525 W. JEFFERSON ST.
SPRINGFIELD, IL 62761

WATER WELL SEALING FORM

RETURN ALL COPIES TO IDPH OR
LOCAL HEALTH DEPARTMENT

TYPE OR PRESS FIRMLY

6MMW-1248

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1. Ownership (Name of Controlling Party) ARCADIS

2. Well Location 16th Street Granite City Madison
Address - Lot Number City County

General Description Township 3N (N)(S) Range 10W (E)(W) Section 24

Quarter of the Quarter of the Quarter

3. Year Drilled 2000

4. Drilling Permit Number (and date, if known) _____

5. Type of Well Bored _____ Drilled X Other _____

6. Total Depth 40 Diameter (inches) 2"

7. Formation clear of obstruction X Yes _____ No

8. DETAILS OF PLUGGING

Filled with Pentonite Slurry from 40 to 1 ft.
(cement or other materials)

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

9. CASING RECORD Upper 2 feet of casing removed X Yes _____ No - over drilled to 40'

10. Date well was sealed Month July Day 13 Year 2005

11. Licensed water well driller or other person approved by the Department performing well sealing.

Terra Drill
Name

092-006857
Complete License Number

500 E Street
Address

Valmeyer IL 62295
City State/ZIP

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DIVISION OF ENVIRONMENTAL HEALTH
525 W. JEFFERSON ST.
SPRINGFIELD, IL 62761

WATER WELL SEALING FORM

RETURN ALL COPIES TO IDPH OR
LOCAL HEALTH DEPARTMENT

TYPE OR PRESS FIRMLY

GMMW-125

This form shall be submitted to this Department or the local health department not more than 30 days after a water well, boring or monitoring well is sealed. Such wells are to be sealed not more than 30 days after they are abandoned in accordance with the sealing requirements in the Water Well Construction Code. **THE LOCAL HEALTH DEPARTMENT OR REGIONAL PUBLIC HEALTH DEPARTMENT MUST BE NOTIFIED AT LEAST 48 HOURS PRIOR TO SEALING.**

1. Ownership (Name of Controlling Party) ARCADIS
2. Well Location 16th Street Granite City Madison
Address - Lot Number City County
- General Description Township 3N (N)(S) Range 10W (E)(W) Section 24
Quarter of the Quarter of the Quarter
3. Year Drilled 2000
4. Drilling Permit Number (and date, if known) _____
5. Type of Well Bored _____ Drilled X Other _____
6. Total Depth 29 Diameter (inches) 2"
7. Formation clear of obstruction X Yes _____ No _____
8. DETAILS OF PLUGGING
Filled with Bentonite Slurry from 29 to 1 ft.
(cement or other materials)
Kind of plug _____ from _____ to _____ ft.
Filled with _____ from _____ to _____ ft.
Kind of plug _____ from _____ to _____ ft.
Filled with _____ from _____ to _____ ft.
Kind of plug _____ from _____ to _____ ft.
9. CASING RECORD Upper 2 feet of casing removed X Yes _____ No - overdrilled to 29'
10. Date well was sealed Month July Day 13 Year 2005
11. Licensed water well driller or other person approved by the Department performing well sealing.
Terra Drill 012-006857
Name Complete License Number
500 E Street Valmeyer IL 62245
Address City State/ZIP

This state agency is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under Public Act 85-0863. Disclosure of this information is mandatory. This form has been approved by the Forms Management Center. IL 482-0631

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
525 W. JEFFERSON ST.
SPRINGFIELD, IL 62761

WATER WELL SEALING FORM

RETURN ALL COPIES TO IDPH OR
LOCAL HEALTH DEPARTMENT

TYPE OR PRESS FIRMLY

6MMW-126

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1. Ownership (Name of Controlling Party) ARCADIS
2. Well Location Walnut St and Niedringhaus Ave, Granite City, Madison
Address - Lot Number City County
- General Description Township 20 (N)(S) Range 10W (E)(W) Section 24
Quarter of the Quarter of the Quarter
3. Year Drilled 2001
4. Drilling Permit Number (and date, if known) _____
5. Type of Well Bored _____ Drilled X Other _____
6. Total Depth 26 Diameter (inches) 2"
7. Formation clear of obstruction X Yes _____ No _____
8. DETAILS OF PLUGGING
Filled with Bentonite Chips from 26 to 2 ft.
(cement or other materials)
Kind of plug _____ from _____ to _____ ft.
Filled with _____ from _____ to _____ ft.
Kind of plug _____ from _____ to _____ ft.
Filled with _____ from _____ to _____ ft.
Kind of plug _____ from _____ to _____ ft.
9. CASING RECORD Upper 2 feet of casing removed X Yes _____ No _____
10. Date well was sealed Month July Day 12 Year 2005.
11. Licensed water well driller or other person approved by the Department performing well sealing.

Terra Drill
Name

092-006857
Complete License Number

500 E. Street
Address

Valmeyer IL 62245
City State/ZIP

This state agency is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under Public Act 85-0863. Disclosure of this information is mandatory. This form has been approved by the Forms Management Center. IL 482-0631

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
525 W. JEFFERSON ST.
SPRINGFIELD, IL 62761

WATER WELL SEALING FORM

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TYPE OR PRESS FIRMLY

GMMW - 115S

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1. Ownership (Name of Controlling Party) ARCADIS
2. Well Location 16th Street Granite City Madison
Address - Lot Number City County
General Description Township 3N (N)(S) Range 10W (E)(W) Section 24
Quarter of the Quarter of the Quarter
3. Year Drilled 2000
4. Drilling Permit Number (and date, if known) _____
5. Type of Well Bored _____ Drilled X Other _____
6. Total Depth 28 Diameter (inches) 2"
7. Formation clear of obstruction X Yes _____ No
8. DETAILS OF PLUGGING
Filled with Bentonite Slurry from 28 to 1 ft.
(cement or other materials)
Kind of plug _____ from _____ to _____ ft.
Filled with _____ from _____ to _____ ft.
Kind of plug _____ from _____ to _____ ft.
Filled with _____ from _____ to _____ ft.
Kind of plug _____ from _____ to _____ ft.
9. CASING RECORD Upper 2 feet of casing removed X Yes _____ No - Overdrilled to 28'
10. Date well was sealed Month July Day 13 Year 2005
11. Licensed water well driller or other person approved by the Department performing well sealing.
Terma Drill 062-006857
Name Complete License Number
500 E Street Valmeyer IL 62295
Address City State/ZIP

This state agency is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under Public Act 85-0863. Disclosure of this information is mandatory. This form has been approved by the Forms Management Center. IL 482-0631

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
525 W. JEFFERSON ST.
SPRINGFIELD, IL 62761

WATER WELL SEALING FORM

TYPE OR PRESS FIRMLY

GMMW-115D

RETURN ALL COPIES TO IDPH OR
LOCAL HEALTH DEPARTMENT

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- Ownership (Name of Controlling Party) ARCADIS
- Well Location 16th Street, Granite City, Madison
Address - Lot Number City County
General Description Township 3W (N)(S) Range 10W (E)(W) Section 24
Quarter of the Quarter of the Quarter
- Year Drilled 2000
- Drilling Permit Number (and date, if known) _____
- Type of Well Bored _____ Drilled X Other _____
- Total Depth 41 Diameter (inches) 2"
- Formation clear of obstruction X Yes _____ No _____
- DETAILS OF PLUGGING
Filled with Bentonite Slurry from 41 to 1 ft.
(cement or other materials)
Kind of plug _____ from _____ to _____ ft.
Filled with _____ from _____ to _____ ft.
Kind of plug _____ from _____ to _____ ft.
Filled with _____ from _____ to _____ ft.
Kind of plug _____ from _____ to _____ ft.
- CASING RECORD Upper 2 feet of casing removed X Yes _____ No - overdrilled to 41'
- Date well was sealed Month July Day 13 Year 2005.
- Licensed water well driller or other person approved by the Department performing well sealing.

Name

Terra Drill

Complete License Number

092-006857

Address

500 E Street

City

Vilmer

State/ZIP

IL 62295

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
525 W. JEFFERSON ST.
SPRINGFIELD, IL 62761

WATER WELL SEALING FORM

TYPE OR PRESS FIRMLY

GMMW-1165

RETURN ALL COPIES TO IDPH OR
LOCAL HEALTH DEPARTMENT

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1. Ownership (Name of Controlling Party) ARCADIS

2. Well Location 16th Street Granite City Madison
Address - Lot Number City County

General Description Township 3N (N)(S) Range 10W (E)(W) Section 24

Quarter of the Quarter of the Quarter

3. Year Drilled 2000

4. Drilling Permit Number (and date, if known) _____

5. Type of Well Bored _____ Drilled X Other _____

6. Total Depth 31 Diameter (inches) 2"

7. Formation clear of obstruction X Yes _____ No

8. DETAILS OF PLUGGING

Filled with Bentonite Chips from 31 to 2 ft.
(cement or other materials)

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

9. CASING RECORD Upper 2 feet of casing removed X Yes _____ No

10. Date well was sealed Month July Day 13 Year 2005

11. Licensed water well driller or other person approved by the Department performing well sealing.

Terra Drill
Name

092-000857
Complete License Number

500 E Street
Address

Valmeyer IL 62295
City State/ZIP

This state agency is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under Public Act 85-0863. Disclosure of this information is mandatory. This form has been approved by the Forms Management Center. IL 482-0631

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
525 W. JEFFERSON ST.
SPRINGFIELD, IL 62761

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1. Ownership (Name of Controlling Party) ARCADIS

2. Well Location 16th Street Granite City Madison
Address - Lot Number City County

General Description Township 3N (N)(S) Range 10W (E)(W) Section 24
Quarter of the _____ Quarter of the _____ Quarter _____

3. Year Drilled 2000

4. Drilling Permit Number (and date, if known) _____

5. Type of Well Bored _____ Drilled ☒ Other _____

6. Total Depth 44 Diameter (inches) 2"

7. Formation clear of obstruction ☒ Yes _____ No

8. DETAILS OF PLUGGING

Filled with Brastarite Chips from 44 to 2 ft.
(cement or other materials)

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

Filled with _____ from _____ to _____ ft.

Kind of plug _____ from _____ to _____ ft.

9. CASING RECORD Upper 2 feet of casing removed ☒ Yes _____ No

10. Date well was sealed Month July Day 13 Year 2005

11. Licensed water well driller or other person approved by the Department performing well sealing.

Terra Drill 092-006857
Name Complete License Number

500 E Street Valmeyer IL 62295
Address City State/ZIP

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NL INDUSTRIES/TARACORP SUPERFUND SITE GROUP

**Leed Environmental, Inc.
Van Reed Office Plaza
2209 Quarry Drive, Suite C-35
Reading, PA 19609
Telephone: 610/670-7310
Telecopy: 610/670-7311**

September 19, 2005

First Class Mail

Mr. Brad Bradley
U.S. Environmental Protection Agency
77 West Jackson Boulevard
Chicago, IL 60604-3590

**RE: NL Industries/Taracorp Superfund Site; Granite City, Illinois
Monitoring Well Abandonment Report**

Dear Mr. Bradley:

For your records, enclosed are two copies of the Monitoring Well Abandonment Report, prepared by ARCADIS G&M, Inc. on behalf of the NL Industries/Taracorp Superfund Site Group, which documents the abandonment of 18 monitoring wells at the NL Industries/Taracorp Superfund Site in Granite City, Illinois, in July 2005.

Please contact this office if additional information or clarification is needed.

Very truly yours,

LEED ENVIRONMENTAL, INC.



Jeffrey A. Leed
Project Coordinator

enclosures

cc: Mr. Doyle Wilson – Illinois Environmental Protection Agency
(with two copies of enclosures, by first class mail)
Technical Committee, NL Industries/Taracorp Superfund Site Group
(w/enclosure, by first class mail)